

AFIR – Cars and Vans

(Alternative Fuels Infrastructure Regulation)

The EU makes charging anxiety a thing of the past

Context

The uptake of electric cars (EVs) has gained momentum, reaching [10.5% of new sales](#) last year ([15% in the first half of 2021](#)). Throughout the next two decades we will see an unprecedented increase in the total number of EVs as carmakers will need to meet stricter CO2 targets. This requires a comprehensive, sufficient and European-wide network of public charging stations.

Range and charging anxiety have long been perceived obstacles for an accelerated uptake of EVs. Member States have been idle when it comes to ambitious plans for a charging infrastructure deployment. With this proposal it is time to end the long-lasting chicken and egg discussion once and for all.

What has the European Commission proposed?

The Commission wants to replace the existing alternative fuels infrastructure directive with a regulation. The proposal is setting out minimum targets for the EU's TEN-T core network (main EU highways) of at least 300 kW of charging power every 60 km in 2025, with at least one charger with 150 kW charging power or more. The

total minimum power is required to rise from 300 kW to 600 kW in 2030.

For the TEN-T comprehensive network (EU secondary highways) the proposal requires the same targets albeit by a delay of 5 years: 2030 and 2035 respectively. Regrettably, this would mean that there is no guarantee that secondary highways will be covered with fast chargers to enable long distance trips to more rural areas during the 2020s.

The proposal further requires all EU Member States to provide at least 1 kW charging power for every battery electric vehicle (BEV) (+ 0.66 kW for every plug-in-electric-vehicle) registered within their territory in the form of publicly accessible charging stations.

In addition to the actual infrastructure requirements, the Commission is also aiming for better user-friendliness of the charging infrastructure. This includes for example better price transparency and easier payment options, including ability to pay by card without authentication.

Summary:

- TEN-T core network: at least 300 kW of charging power every 60 km by 2025, 600 kW by 2030

- TEN-T comprehensive network: at least 300 kW of charging power every 60 km by 2030, 600 kW by 2035
- Fleet-target: 1 kW of public charging power per BEV (0.66 kW / PHEV)
- Requirements for easier payment and more price transparency

What's good? What's not?

The proposal is overwhelmingly strong and shows the Commission is serious about its Green Deal ambition. Proposing a regulation with binding targets will enable a fast and consistent roll-out of charging points in all of Europe. Member States will need to implement it directly, this is crucial to close the substantial gaps on Europe's charging-map as swiftly as possible.

Especially the **fleet-based target** ensures that **the number of public available charging stations will increase proportionally to the uptake of electric cars.** It is however not sufficiently addressed that some countries might need a higher initial target, as their charging-infrastructure is less developed than the European average.

The distance based coverage targets are key to eliminate (prospective) EV-drivers remaining fears of charging and range anxiety. The proposal fails however to ensure that long distance trips are also comfortably possible before 2030 into Europe's remoter areas.

Worrisome is that the Commission is setting out oversized requirements for hydrogen refuelling infrastructure. Despite all main automotive manufacturers' strategies clearly suggesting that FCEVs will be a niche phenomenon at best. The Commission is estimating only a total number of 400,000 vehicles in 2030 – 90 times less than BEVs.

The proposal is also neglecting that people in urban and suburban areas, require charging opportunities at places where they park their cars. This is especially important for parking areas at commercial locations like shops, malls, leisure or sport facilities.

More could be done to make charging as consumer-friendly as possible and to define public chargers in a way that they are consistently available to the public.

How should it be improved?

Coverage Targets

In order to have real comprehensive coverage of all of the EU's main roads, the targets for the TEN-T core and comprehensive networks should be harmonised. This means that on Europe's **secondary highways a minimum comprehensive coverage should be available latest by 2025.** The 2035 goals should be adjusted accordingly to 2030.

Fleet-based target

Although the general concept is a strong mechanism to ensure that the infrastructure will increase in line with the number of electric cars, the co-legislators should introduce an **absolute minimum**

number of charging power for an anticipated 10% of the total vehicle fleet in each country in 2030 as well as adjusted intermediate targets for 2025 and 2027. This would ensure basic coverage even in those EU Member States where the uptake of electric cars is still lagging behind. The fleet based power target of 1 kW/BEV is likely sufficient in the long term (from 2030). However, it falls short of where the charging network needs to be in the short term (in the 2020s) to facilitate mass adoption of EVs.

Commercial properties

Furthermore, the regulation should require that **15% of parking spaces of medium and large commercial properties in 2030** are fitted with public accessible chargers since these are the parking areas where cars are actually parked..

User-friendliness

In addition a public charger should only qualify as such if it is available to the public at least **8 hours per day (7 days a week), with an uptime of 98– 99%**.

To make the proposal more consumer friendly Member States and MEPs should ensure that **card payment is available at**

all public chargers with a power output of 10 kW and more, instead of 50 kW and more.

Improve Market Conditions

Finally, Member States need to guarantee that obtaining the final permit/building authorisation for a publicly accessible charger being installed pursuant to the requirements of this Regulation, takes no longer than **6 months from the date of the initial application**.

Don't forget...

The Alternative Fuels Infrastructure Regulation is setting minimum requirements that allow every European to get and use an EV anywhere in Europe. But, the regulation needs to be carefully balanced. If the targets are too low it could hamper the uptake of EVs. If they are too high it could lead to an oversupply and an inefficient use of public funds. This would endanger the business case of the electric vehicle infrastructure industry and could harm a well functioning infrastructure network in the long run.

Further information

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